

## **Cover Page**

**Official Title of the study:** The Effects of Posture on Timed up and go

**NCT number:** NCT03032393

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## Study Protocol

Thirty subjects will be recruited using convenient sampling from the university community through word of mouth including email communications. The inclusion criteria are male or female, age 18 to 65, with all 4 extremities intact, and ability to stand still for 20 seconds. The exclusion criteria are unable to stand with their feet together or one foot apart for at least 20 seconds, unable to wrap their arms around their torso or keep their hands on their hips for 20 seconds, unable to perform sit to stand transfer and ambulation independently, and cognitive impairments that interfere with the experimental procedures.

The willingness of the subjects' participation and subjects' right to refuse participation will be fully explained and documented in the informed consent form. Demographical information (age and gender) will be collected.

The research design is a randomized controlled trial. Subjects will be randomly assigned to the experimental group or the control group. In the experimental group, subjects will stand with hands on their hips, elbows pointing out and feet approximately one foot apart (high-power) for 20 seconds. In the control group, subjects will stand with hands and arms wrapping around the torso and feet together (low-power) for 20 seconds.

Outcome measurement includes TUG test. The outcome measurements will be prior to the postural intervention to establish a baseline and immediately after the postural intervention to detect any changes.

### Data Analysis

Changes in TUG test scores will be reported as mean and standard deviation (SD). Student t-test will be used to determine whether there were statistically significant differences between the changes in the outcome measurements in the HP and LP groups. An alpha value of 0.05 will be used to determine statistical significance.